CLOSURE GUIDANCE for UNDERGROUND STORAGE TANKS (USTs) on INDIAN LANDS, Region 10 EPA

Alaska, Idaho, Oregon, and Washington

April 2001

GENERAL: Regulation of UST closures is covered under federal regulation 40 C.F.R. Part 280, which became effective on December 22, 1988. Requirements for UST closure are described under Subpart G of these regulations, specifically §280.70 through §280.74; however this guidance is intended to generally clarify the regulations and offer specific procedural recommendations. "Closures" of regulated USTs consist of the following three actions:

- **permanent closure**
- **temporary closure**
- **change-in-service**

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APPLICABILITY: If an UST facility is within the boundaries of an Indian Reservation, or outside a Reservation but on Indian trust land or on land recognized as a "dependent Indian community," regulatory jurisdiction remains with the EPA ["Indian Country," 18 USC §1151(b)], i.e. the federally approved state UST program does not extend into Indian Country. Hence any such UST closure work on these lands must be coordinated directly with EPA. For lands within a Reservation, this applies regardless if the UST facility is on privately-owned lands, government-owned lands, or Indian trust lands, whether tribal or individual allotments. (The only exception to this is the former Puyallup Indian Reservation, where EPA has approved the Washington State program for non-trust and unrestricted lands, pursuant to the Puyallup Lands Claims Settlement Acts, 25 USC §1773.) **In addition, Tribal Governments have an interest in USTs and several Tribes have**

regulatory programs specific to USTs; therefore, owners/operators are referred to the respective Tribe to ensure Tribal concerns are met.

SIGNIFICANCE: The importance of following this tank closure guidance to the owner/operator ("O/O") of an UST facility is as follows:

- It will assist the O/O in properly verifying that the UST system has not leaked, thus allowing EPA to give a timely approval of the closure action results.

- If contamination is found during the closure work, it will alert the O/O to immediate reporting requirements, and the closure site assessment work will also serve to help plan remediation (cleanup) activities. Also, the sooner contamination is identified and cleanup work is started, the easier and usually cheaper it is to cleanup the site.

- Following this guidance should help to minimize any private party damage claims if any contamination is found that has the potential to impact off-site lands such as neighboring water wells, basements (vapors), etc.

- Following recommended industry safety standards during the closure work, should prevent serious accidents involving the workers, equipment, and other assets. **Remember, regardless of how old or empty an UST is thought to be, the tank is still a very real source of explosive and toxic gases–closure work is not for amateurs.** A number of fatalities still happen each year due to explosions and suffocations during closure work. While federal UST regulations do not provide specific requirements for tank decommissioning work, many other regulations and codes have extremely important bearing on this kind of work, such as the Uniform Fire Code (UFC) and OSHA (e.g. confined space entry). It should be noted that tank decommissioning work performed under most state UST jurisdictions is required to be done by certified personnel. An excellent guide to this work is the American Petroleum Institute's (API) "Closure of Underground Petroleum Storage Tanks" (RP 1604, 3rd edition, 1996). API's "Cleaning Petroleum Tanks" (Standard 2015, 5th edition, 1994) may also be useful. Copies of these API publications can be ordered at (202) 682-8375.

NOTIFICATION REQUIREMENTS: At least 30 days prior to beginning tank closure, you must notify EPA of your intent to perform closure work (see attachment for notification form). The purpose of this notification is to allow EPA the option of observing the closure work. It is recommended the actual notification be in writing, or a FAX to EPA; however, a phone call to one of the EPA UST staff members is acceptable and they will log-in your verbal notification. Information needed in the notification is as follows:

- name and location of the UST facility,

- the EPA UST facility identification number,

- the kind of closure (permanent, temporary, etc.)

- specific tanks involved,

- the names and phone numbers of the contractor and/or site assessment consultant,

- method of closure (either removal or in-place), and
- the date(s) the work is scheduled.

Upon receipt of the advance notification, EPA will send you a letter confirming the closure information. The 30-day period will commence upon EPA receipt of the notification; however, EPA encourages that the tank be pumped out as soon as possible, even in advance of the scheduled closure field work. To submit the required 30-day advance notification for Indian Land UST closures in **Alaska, Idaho, Oregon, and Washington**, please send it to:

USEPA Region 10
Attention: UST Program (OW-137)
1200 6th Avenue
Seattle, WA 98101
Telephone:(800) 424-4372
Fax: (206) 553-1280

CLOSURE REQUIREMENTS:

Permanent Closure: EPA regulations for permanent closure (40 CFR §280.71) require all tanks to be emptied and all liquids and sludge to be removed and disposed of in an approved manner. The tank must then either be removed from the ground or filled with solid inert material. A sand slurry, a weak cement slurry (in case you want to break it up and remove it in the future), or some of the new foam products, are all acceptable fill materials.

Although EPA regulations allow in-place closures, EPA strongly recommends tank removal for the following reasons:

- because it is easier to obtain soil or ground water samples needed below the tank for the site assessment (see below);
- if any contamination is found below the tank it is almost certain that the tank will need to be removed; and
- it will probably make any future sale of your property less complicated.

If you wish to perform an in-place closure, first check with your local fire department to insure they will allow this in your area; some local departments require removal.

Temporary Closure: Federal UST regulation 40 CFR §280.70 is clear on this requirement and is reprinted as follows:

(a) When an UST system is temporarily closed, owners and operators must continue operation and maintenance of corrosion protection in accordance with §280.31, and any release detection in accordance with Subpart D. Subparts E and F must be complied with if a release is suspected

or confirmed. However, release detection is not required as long as the UST system is empty. The UST system is empty when all materials have been removed using commonly employed practices so that no more than 2.5 centimeters (one inch) of residue, or 0.3 percent by weight of the total capacity of the UST system, remain in the system.

(b) When an UST system is temporarily closed for 3 months or more, owners and operators must also comply with the following requirements:

(1) Leave vent lines open and functioning, and

(2) Cap and secure all other lines, pumps, manways, and ancillary equipment.

(c) When an UST system is temporarily closed for more than 12 months, owners and operators must permanently close the UST system if it does not meet either performance standards in §280.20 for new UST systems or the upgrading requirements in §280.21, except that the spill and overfill equipment requirements do not have to be met. Owners and operators must permanently close the substandard UST at the end of this 12-month period in accordance with §§280.71-280.74, unless the implementing agency provides an extension of the 12-month temporary closure period. Owners and operators must submit a site assessment in accordance with §280.72 before such an extension can be applied for.

Change-in-Service: Federal UST regulation 40 CFR §280.71 on this aspect of closure is also clear:

(d) Continued use of an UST system to store a non-regulated substance is considered a change-in-service. Before a change-in-service, owners and operators must empty and clean the tank by removing all liquid and accumulated sludge and conduct a site assessment in accordance with §280.72.

Change-in-services are rare, but usually involve converting a farm UST from storing gasoline or diesel fuel to storing water, a non-regulated substance.

SITE ASSESSMENT WORK AND REPORT: Before permanent closure is completed, 40 CFR §280.72 requires owners to conduct a site assessment to test for evidence of a release where contamination is most likely to be present. This means samples must be taken from representative locations, such as under and adjacent to the tank(s), piping, and dispenser(s), and then be analyzed for appropriate contaminants.

The soils below both the tank and piping should be tested, and state regulations on sample type, location, number of samples, and method of analysis should be followed. In addition, if contamination reaches the ground water, ground water samples must be taken. Samples are more difficult to take, and more samples are likely to be needed, if the tank is closed in-place rather than removed, because in-place closure prevents direct observation of the excavation. (This is an additional incentive for tank removal).

In selecting sample types, locations, and methods of measurement, the method of closure, type of substance stored, type of backfill, depth to ground water and other factors appropriate to identifying the release must be considered.

Having valid proof of a "clean closure" is important, not only because the law requires it, and because EPA inspectors will look for it, but because this proof is also increasingly being required by lending institutions, insurance agencies, real estate companies, and future potential buyers of property. It is important that the assessment is complete and properly done; there may be a significant difference between just "squeaking by" to meet the intent of the law, and providing sufficient evidence of a clean site to satisfy a prospective buyer, bank, or insurance company.

Results of the site assessment are your proof that the site was properly closed. Ensuring an adequate number of samples are properly collected and correctly analyzed is important if sample results are to have legal or scientific validity. It is therefore important to have an experienced cleanup contractor or a site assessor conduct or oversee the sampling and analysis for you. They will determine the correct number and location of samples, use proper sampling procedures, select appropriate analyses, and otherwise assure that your information is legally defensible. (Grabbing a single sample in a cup or jar and leisurely taking it to the nearest laboratory will not produce valid results or satisfy EPA or lending institutions).

Regarding the site assessment procedures and reporting format, EPA will accept work and subsequent reports and forms that would otherwise be acceptable to the state UST program for the state in which the "Indian Land" is located. State publications that describe their respective site assessment requirements are as follows:

Alaska: 18 AAC 78.090 and Chapter 2 of the "Underground Storage Tanks Procedures Manual" (ADEC Publication, September 1995)

Idaho: "Recommended Practices for Site Assessment During Closure of Underground Storage Tanks Containing Petroleum" (IDEQ Publication, Series No.3, August 1997)

Oregon: "Recommended Practices for the Permanent Decommissioning of Underground Storage Tanks" (ODEQ Publication, January 1994)

Washington: "Guidance for Site Checks and Site Assessments for Underground Storage Tanks" (WDOE Publication 90-52, revised October 1992)

EPA requires submission of an original copy of the site assessment results along with the original completed closure certification form. Failure to conduct a site assessment is considered a major violation of the UST regulations, and owners who do not conduct a site assessment at closure will be subject to EPA enforcement action.

Regulation 40 CFR §280.72 (a) provides the only alternative to conducting a site assessment for closure purposes. It allows the use of negative ground water monitoring or soil vapor monitoring results to document that no contamination has taken place; however, these methods of UST leak detection are rarely used because of their complexity and because site assessment work is required prior to installing these systems. Refer to 40 CFR §280.43 (e) and (f) for specifics.

REPORTING RELEASES (Leaks and Spills): If a leak is discovered, or if sample analysis during site assessment indicates contamination above the state or Tribal action levels for contaminated soil or ground water, or if free product (liquid) or vapors are discovered at any time or by any other means, **40 CFR**

§280.50 requires the owner and operator to notify EPA within 24 hours of detecting the leak or spill. Then begin the cleanup process following federal regulations, state, or Tribal cleanup guidance. Clean up any free product immediately, and if fire or explosion hazards are noticed, immediately notify the local fire department. Contractor reports should be submitted to EPA. EPA will then evaluate the site and determine the level of EPA involvement/oversight of the corrective action based on the reports and any inspections made. After the initial report, EPA will send you a confirmation letter.

ACTION LEVELS AND CLEANUP LEVELS: EPA has adopted the leak reporting and cleanup standards of the state in which the Indian Lands are located, as standards to be used on Indian Lands. Each state has set action levels for reporting contamination and target cleanup levels; these vary slightly from state to state. See the table in the Attachments for specific state soil and ground water cleanup levels.

> **NOTE: Several Tribal Governments have regulatory programs regarding leaking USTs. EPA will use the more stringent cleanup requirements (State or Tribal), and owners/operators are advised to become familiar with and to adhere to both sets of cleanup requirements.**

TANK DISPOSAL CONSIDERATIONS: A tank that is empty and cleaned is generally not considered a hazardous waste. It can normally be sold or donated to scrap metal dealers. Uncleaned tanks should not be transported unless they are first inerted to prevent explosions.

Sludge from tanks storing leaded petroleum products may have high lead content, and is potentially considered a hazardous waste. Persons handling and disposing of the sludge should ensure that they understand the hazardous waste regulations. It is the responsibility of the tank handler and owner to make the correct determination of whether a waste is hazardous, based on EPA's hazardous wastes criteria listed in 40 CFR Part 261.

Sludge should be tested to see if it fails the Ignitability or Toxicity Characteristic Leaching Procedure (TCLP) criteria for hazardous waste. If the sludge does not qualify as a hazardous waste, it may be disposed of at a regulated municipal landfill. If it is a hazardous waste, it must be disposed of at an approved hazardous waste facility.

Soil contaminated solely by petroleum products is not considered a hazardous waste under federal law, and can sometimes be disposed of in regulated municipal landfills; **however, this needs to be verified for each situation.** The option exists to treat any contaminated soil either on or off-site prior to landfill or other approved disposal. Soil contaminated by hazardous substances must be dealt with on a case-by-case basis, since properties of the chemicals vary so widely. In many cases, it will be considered hazardous waste, and must be handled accordingly. There are many ways to deal with contaminated soil besides digging it up and hauling it to a landfill. EPA encourages use of alternative treatment methodologies such as bioremediation, soil vapor extraction, disposal to asphalt batching plants and other methods, when feasible.

CLOSURE RECORDS: Owners and operators must maintain a copy of the site assessment required under 40 CFR §280.72 at the UST site or a readily available alternative site, for three years after permanent closure or change-in-service. Although the rule only requires record retention for three years, EPA recommends records be kept indefinitely; proof of "clean closure" will help you if you wish to sell your property in the future.

Once closure is completed, and a site assessment has been done, complete the attached CERTIFICATION OF COMPLETED CLOSURE form and return it, along with an original site assessment report, to the EPA Regional Office in Seattle (see below). Once EPA receives these, we will evaluate the information, and when all is in order, officially close your file. If the certification form and/or the site assessment report is/are unclear or incomplete, EPA will contact you.

LOCAL CLOSURE PERMITS: In addition to the EPA regulations, the Uniform Fire Code also requires tanks out of service for one year to be abandoned in a manner approved by the fire chief. **Depending on your location, you may also need to obtain a closure permit from the local fire chief or Tribe prior to closure.**

CLOSURE COMPLETION CERTIFICATION: Upon completion of the closure action, the owner or the owner's authorized representative must submit an original CERTIFICATION OF COMPLETED CLOSURE form to EPA.

Submit the site assessment report and the required CERTIFICATION OF COMPLETED CLOSURE form for UST closures on Indian Lands in Alaska, Idaho, Oregon, and Washington, to:

1. US EPA Region 10
   Attention: UST Program (OW-137)
   1200 6th Avenue
   Seattle, WA 98101
   Telephone:(800) 424-4372
   Fax: (206) 553-1280

2. Tribal Government

FURTHER EPA CONTACTS: To discuss technical closure or other site-specific matters for Indian Land UST closures in Alaska, Idaho, Oregon, and Washington, please contact:

David Birney
Attention: Indian Health Service
1919 E. Francis Avenue
Spokane, Washington 99207
telephone: (509) 484-9341 ext. 225
fax: (509) 484.0528
email: david.birney@mail.ihs.gov

OR

Wally Moon
USEPA Region 10 (OW-137)
1200 6th Avenue
Seattle, Washington 98101

telephone: (206) 553-6903
(800) 424-4372 ext 6903
fax: (206) 553-1280
email: moon.wally@epa.gov

CLEANUP LEVELS FOR PETROLEUM HYDROCARBONS IN SOIL AND GROUND WATER

Indicator Compound		Soil (mg/kg)				Ground Water (mg/l)			
		WA	OR[E]	ID[E]	AK[C,D]	WA	OR[E]	ID[E]	AK[C]
Volatile Organic Compounds (typically found in gasoline)	Benzene *	0.5	0.1		0.02-390	0.005	0.005		0.005
	Ethylbenzene	20.0	100		5-13,700	0.030	0.7		0.7
	Toluene	40.0	80		4.8-27,400	0.040	1.0		1.0
	Xylene	20.0	800		64-274,000	0.020	10.0		10
Semi-volatile and Non-volatile Organic Compounds (typically found in diesel)	Benzo(a)pyrene *	NS	0.1		0.9-3	NS	0.0002		0.0002
	Acenaphthene	NS	2,000		190-8,200	NS	0.42		2.2
	Fluoranthene	NS	8,000		1,900-5.500	NS	0.28		1.46
	Naphthalene	NS	30		38-5,500	NS	0.028		1.46
Additives	MTBE (EPA 12/97 Drinking Water Advisory is 20-40 ug/L)	NS	NS		NS	NS	NS		NS
	Total Lead	250	200/2,000[A]			0.005	0.005		0.015 action level
Gasoline	TPH	100.0	40[B]		Refer to State Regulation Tables A1, A2, B2 for Petroleum Hydrocarbon Soil Cleanup Levels	1.0	NS		Refert to State Regulations Table C for Petroleum Hydrocarbon Ground Water Cleanup Levels
Diesel	TPH	200.0	100[B]			1.0	NS		
Waste and Lubricating Oils	Total Petroleum Hydrocarbons (TPH)	200.0	100[B]			1.0	NS		DRO,GRO,RRO (Aliphatic and Aromatic)[F]

Notes: **This TABLE is not intended as a definitive guide**--user is advised to confirm exact state contaminants and cleanup levels; "*" Carcinogen; "NS" No standard; "[A]"Soil Maximum (200 residential and 2,000 industrial); "[B]"Level I soil cleanup standards; "[C]"January 22, 1999, regulations incorporate Risk Based Decision Making with soil and ground water Cleanup Tables; "[D]"For soil there are three climatic zones and three pathways specified; "[E]"for Idaho (effective 1/1/97), a Risk Based Corrective Action (RBCA) approach is required; for Oregon RBCA is expected to be a future alternate cleanup approach. "[F]"DRO, GRO, and RRO refer to diesel, gasoline, and residual range organics, respectively.

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30 DAY ADVANCE CLOSURE NOTIFICATION
for Underground Storage Tanks (USTs) on Indian Lands
EPA Region 10 (Alaska, Idaho, Oregon, and Washington)

EPA UST Facility No.: _____

TYPE (check those that apply):

G Permanent:
G Tank Removal **or G** Closure-in-Place
G Temporary (Request for extension beyond 1 year)
G Change-in-Service (Going from a regulated use to an unregulated use (e.g. from storing diesel fuel to storing water)

PROPOSED DATES(S) FOR CLOSURE WORK:
FACILITY NAME:
Address: Phone No.:
On-Site Contact and Telephone No.:
TANKS INVOLVED:
Tank Number Volume (gals) Substance(s) Stored Throughout Tank Use
TANK DECOMMISSIONING/REMOVAL WORK TO BE PERFORMED BY:
Company Name:
Address:
Contact Person: Phone No.
SITE ASSESSMENT WORK (SAMPLING AND REPORT) TO BE PERFORMED BY:
Company Name:
Address:
Contact Person: Phone No.:
THIS NOTIFICATION SUBMITTED BY (check one):
G Owner/Operator **G** Owner **G** Owner's authorized representative
Name (printed): Phone No.:
Signature: Date:

Send this notice to:

1. US EPA Region 10
   Attention: UST Program (OW-137)
   1200 6th Avenue
   Seattle, WA 98101

2. Tribal Government

CERTIFICATION of COMPLETED CLOSURE
For Underground Storage Tanks (USTs) on Indian Lands
EPA Region 10 (Alaska, Idaho, Oregon, and Washington)

EPA UST Facility No.: _____

TYPE (check those that apply):

G Permanent:
G Tank Removal **or** G Closure-in-Place
G Temporary (Request for extension beyond 1 year)
G Change-in-Service (Going from a regulated use to an unregulated use (e.g. from storing diesel fuel to storing water)

WAS CLOSURE WORK WITNESSED BY EPA, TRIBAL, OR OTHER LOCAL UST OFFICIAL:
G No G Yes If yes, who and what organization?
DATES(S) FOR CLOSURE WORK:
FACILITY NAME:
Address: Phone No.:
On-Site Contact:
TANKS INVOLVED:
Tank Number Volume (gals) Substance(s) Stored Throughout Tank Use
CONTAMINATION FOUND ABOVE STATE CLEAN-UP LEVELS? G No G Yes
If Yes, was groundwater contamination also found? G No G Yes
If any contamination was found, when was EPA notified?
and by whom?
THIS NOTIFICATION SUBMITTED BY (check one):
G Owner/Operator G Owner G Owner's authorized representative
Name (printed): Phone No.:
Signature: Date:

Send this notice and an original of the site assessment report to:

1. US EPA Region 10
Attention: UST Program (OW-137)
1200 6th Avenue
Seattle, WA 98101

2. Tribal Government

Note: For releases refer to the directions on the back of this form.

NOTE: If during the closure work, contamination or evidence of a **release** to the environment (vapors, free product, etc.) from an UST system is found, it must be reported to EPA **within 24 hours** of its discovery (40 CFR §280.50), and subsequent action taken according to 40 CFR Subparts E and F. **However, if the contamination is confined to soils (i.e. no groundwater contamination), and it is less than 10 cubic yards (CYs) in volume, and it is completely removed during the closure operations, and it is properly disposed in a licensed treatment/disposal site, then EPA will accept this form and consider the contamination found during closure as incidental.**